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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/652,075	09/02/2003	Norihiro Kawasaki	242150US90	1512
22850 7590 01/22/2008 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER FRINK, JOHN MOORE	
			ART UNIT	PAPER NUMBER
			2142	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/652,075	Applicant(s) KAWASAKI ET AL.	
	Examiner John M. Frink	Art Unit 2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 5 is objected to because of the following informalities: on line 2 claim 5 states 'sais terminal', where 'sais' is misspelled. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what Applicant means by 'separating the required data for a plurality of resources, executed by a hardware or a software resource, if the first terminal receives the service using the plurality of resources.' For the purpose of performing a complete examination, this language has been interpreted broadly.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1 - 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneko Yoshiki, (Japanese publication number 09-154108), hereafter Yoshiki in view of

Tomarchio et al. (Code mobility for adaptation of multimedia services in a VHE environment, ISCC'02).

2. Regarding claim 1, Yoshiki shows a suspended service recovery system for receiving a service non-continuously via a network from a service-providing apparatus deployed on the network, comprising:

- a first terminal and a second terminal, both of which receive the service from the service-providing apparatus (Abstract);

- an analyzer configured to analyze a suspend-state if the service being provided to the first terminal via the network is suspended, and to extract required data in order to recover the service from the suspend-state ([0017,0019,0024]);

- a representation unit configured to store the required data extracted by the analyzer as state-description data ([0026-0029,0037]);

- a storing unit configured to store the state-description data ([0016,0017,0019]);

- a memory unit configured to store a recovery table which correlates each item of the state-description data with a data type that is processed on the second terminal ([0026-0029]);

- a state-description transformer configured to transform the state-description data retrieved from the storing unit to recovery-state data based on the recovery table ([0026-0035]); and

- a service-recovering unit configured to recover the suspended service on the second terminal based on the recovery-state data ([0017,0019,0024]) and

a service execution unit configured to resume the suspended service on the second terminal based on the recovery-state data of the service-recovering unit (Fig. 5, [59-60]).

Yoshiki does not show where the representation unit is configured to convert the required data extracted by the analyzer to state-description data according to a prescribed format.

Tomarchio shows where the representation unit is configured to convert the required data extracted by the analyzer to state-description data according to a prescribed format (Sections 1, 3.2, 3.3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Yoshiki with that of Tomarchio in order to allow for maximum user mobility and compatibility across multiple devices, allowing services to be developed only once independently of the actual user terminal and its capabilities (Tomarchio, Abstract).

3. Regarding claim 2, Yoshiki in view of Tomarchio further show a suspended service recovery method for receiving a service non-continuously via a network from a service-providing apparatus deployed on the network using a first terminal and a second terminal, comprising the steps of:

(1) analyzing a suspend-state if the service being provided to the first terminal via the network is suspended, and extracting required data in order to recover the suspend-state (Yoshiki [0017,0019,0024]);

(2) converting the required data extracted at a step (1) to state-description data according to a prescribed format (Yoshiki [0026-0029,0037]; Tomarchio Sections 1,3.2.,3.3);

(3) storing the state-description data (Yoshiki [0016-0019]);

(4) transforming the retrieved state-description data to recovery-state data based on a recovery table which correlates each item of the state-description data with a data type that can be processed on the second terminal (Yoshiki [0017,0019,0024]; Tomarchio Sections 1,3.2.,3.3); and

(5) recovering and resuming the suspended service on the second terminal based on the recovery-state data (Yoshiki [0017,0019,0024]).

4. Regarding claim 3, Yoshiki in view of Tomarchio further show a terminal for receiving a service non-continuously via a network from a service-providing apparatus deployed on the network, comprising:

an analyzer configured to analyze a suspend-state if a service being provided via the network is suspended, and to extract required data in order to recover and resume, on another terminal, the suspend-state (Yoshiki Fig.5 and [17,19, 24, 59-60]); and

a transmitter configured to transmit the required data to the network (Yoshiki [0024-0031]).

5. Regarding claim 4, Yoshiki in view of Tomarchio further show a terminal according to claim 3, further comprising a representation unit to convert the required data extracted by the analyzer to state-description data according to a prescribed

format, and wherein the transmitter transmits the state-description data in lieu of the required data to the network (Tomarchio, Sections 1, 3.2, 3.3, Figs. 2, 3 and 4).

6. Regarding claim 5, Yoshiki in view of Tomarchio further show a terminal for receiving a service non-continuously via a network from a service-providing apparatus deployed on the network, comprising a service-recovering unit configured to recover the service from a suspend-state, said service suspended by another terminal based on required data retrieved from the network (Yoshiki [0017-0024]) and a service execution unit configured to resume the suspended service on said terminal based on the recovery-state data of the service recovering unit (Yoshiki, Fig. 5, [59-60]).

7. Regarding claim 6, Yoshiki in view of Tomarchio further show a terminal for receiving a service non-continuously via a network from a service-providing apparatus deployed on the network, comprising:

a retriever configured to retrieve state-description data in which required data to recover a a suspended service is converted according to a prescribed format (Tomarchio Sections 1, 3.2, 3.3);

a memory unit configured to store a recovery table which correlates each item of the state-description data with a data type that is processed on another terminal (Yoshiki [0026-0029]);

a state-description transformer configured to transform the retrieved state-description data to a recovery-state data based on the recovery table; and a service-recovering unit configured to recover the suspended service on the other terminal based on the recovery-state data (Yoshiki [0016-0024,0037]), a service execution unit

configured to resume the suspended service on said terminal based on the recovery-state data of the service recovering unit (Yoshiki, Fig. 5, [59-60]).

8. Regarding claim 7, Yoshiki in view of Tomarchio further show a terminal according to claim 6, further comprising a resource determination unit configured to determine a hardware or software resource executable in said another terminal based on the recovery table to resume the service from the suspended state (Tomarchio Sections 3 and 4).

9. Regarding claim 8, Yoshiki in view of Tomarchio further show a suspended service recovery apparatus for providing a service non-continuously to a first terminal and a second terminal via a network, said apparatus comprising:

a state-description data retriever configured to retrieve state-description data to convert a suspend-state of a suspended service to a prescribed format and including information sufficient to recover and resume the suspended service on the second terminal (Tomarchio Sections 1, 3.2, 3.3);

a storing unit configured to store the retrieved state-description data (Yoshiki [0016-0019]); and

a state-description data transmitter configured to transmit the state-description data to the second terminal according to a request by the second terminal (Yoshiki [0026-0035]), the suspended service recovered and resumed on the second terminal (Yoshiki, Fig. 5, [59-60]).

10. Regarding claim 9, Yoshiki in view of Tomarchio further show a suspended service recovery apparatus according to claim 8, further comprising a representation

unit configured to acquire the suspend-state if the service being provided to the first terminal is suspended, and to convert required data to recover the suspend-state to the state-description data according to a prescribed format (Tomarchio Sections 3.2 and 3.3; Yoshiki [0016-0024, 0026-0035]).

11. Regarding claim 10, Yoshiki in view of Tomarchio further show a suspended service recovery apparatus according to claim 8, further comprising: a memory unit configured to store a recovery table which correlates each item of the state-description data with a data type that can be processed on the second terminal; and a state-description transformer configured to transform the state-description data retrieved from the storing unit to recovery-state data, which is utilized to recover the suspended service, based on the recovery table (Tomarchio Sections 3.2 and 3.3; Yoshiki [0016-0024, 0026-0035]).

12. Regarding claim 11, Yoshiki in view of Tomarchio further show a computer program readable medium including computer executable instructions, which when executed by a computer cause the computer to implement a method of receiving a service non-continuously via a network from a service-providing apparatus deployed on the network using a first terminal and a second terminal, said method comprising the steps of:

(1) analyzing a suspend-state if the service being provided to the first terminal via the network is suspended, and extracting required data in order to recover the suspend-state (Yoshiki [0017-0019,0024]);

(2) converting the required data extracted at a step (1) to state-description data according to a prescribed format (Yoshiki [0026-0029,0037]; Tomarchio Sections 1, 3.2, 3.3);

(3) storing the state-description data (Yoshiki [0016-0019]);

(4) transforming the retrieved state-description data to recovery-state data based on a recovery table which correlates each item of the state-description data with a data type that can be processed on the second terminal (Yoshiki [0016-0019]; Tomarchio Sections 1, 3.2, 3.3); and

(5) recovering and resuming the suspended service on the second terminal based on the recovery-state data (Yoshiki [0017-0019, 0024]).

13. Regarding claim 12, it is inherent that the state-description data is described in a text format using characters or symbols, as there is no other method for storing data that is interpreted/utilized by computers.

14. Regarding claim 13, Yoshiki in view of Tomarchio further show wherein at a step (4), hardware or software resource executable in the second terminal is selected based on the recovery table to resume the service from the suspended state (Yoshiki [0017-0019,0024]; Tomarchio Sections 3 and 4).

15. Regarding claim 14, Yoshiki in view of Tomarchio further show separating the required data for a plurality of resources, executed by a hardware or a software resource, if the first terminal receives the service using the plurality of resources (Yoshiki [0026-0028]).

16. Regarding claim 15, Yoshiki in view of Tomarchio further show merging the plurality of state-description data and transforming the merged state-description data to the recovery-state data and (Yoshiki [0026-0028]), and simultaneously recovering the service using a plurality of resources executed by a hardware or a software resource (Yoshiki [0017-0026], Tomarchio, Sections 3.1, 3.2 and Figs 2 - 4).

17. Claims 1 – 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP laid-open H9-154108 in view of 2001 Communications Society Conference of IEICE (also referred to as 'Koichi in view of Sakamoto') for the reasons given in the provided Japanese Notification of Reason for Refusal, where the claims 1-15 in the present application correspond to claims 1-23 referenced by JP laid-open H9-154108.

Response to Arguments

5. Applicant brings by arguing that rejections of claims 1-15 under 35 USC 102(a) in view of Koichi are not applicable for failing to disclose that when a service is executed on a first node, the service is recovered and resumed on a second node. This argument is moot as this grounds of rejection has been withdrawn. However, this argument is repeated by Applicant when addressing the rejection made under 35 USC 103, which is cited by Applicant as Koichi in view of Sakamoto (but cited in this and the preceding action as 'JP laid-open H9-154108 in view of 2001 Communications Society Conference of IEICE'). Specifically, this rejection made under 35 USC 103 cites both Koichi and Sakamoto, where the Sakamoto reference specifically teaches 'that when a service is executed on a first node, the service is recovered and resumed on a second node' (see

the English Abstract of B-7-58, 'Service Mobility Management in Resource-aware Seamless Service'). Paragraph one cites 'enabling a service to transfer freely between the terminal devices'. Applicants argument therefore is not persuasive.

6. Applicant further argues the 35 USC 103 rejection made in view of Koichi in view of Sakamoto. However, Applicant's remaining arguments regarding this rejection are mere recitations of pieces of claims 2 – 15, without any explanation or elaboration as to why the Applicant's claim language is patentable over the provided art. Thus Applicant's arguments are not persuasive.

7. Applicant also argues the rejection made under 35 USC 103, Yoshiki in view of Tomarchio. Applicant argues that neither Yoshiki nor Tomarchio show recovering a suspended service on a second terminal based on recovery-state data of the service recovering unit'. However, Yoshiki clearly shows this feature in Fig. 5 and in [59-60], showing recovering a service from terminal 1 to terminal 3, based on recovery-state data stored on service server 2. Applicant's argument thus is not persuasive.

8. Applicant further argues this rejection made under 35 USC 103, Yoshiki in view of Tomarchio. However, Applicant's remaining arguments regarding this rejection are mere recitations of pieces of claims 2 – 15, without any explanation or elaboration as to why the Applicant's claim language is patentable over the provided art. Thus Applicant's arguments are not persuasive.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Frink whose telephone number is (571) 272-9686. The examiner can normally be reached on M-F 7:30AM - 5:00PM EST; off alternate Fridays.

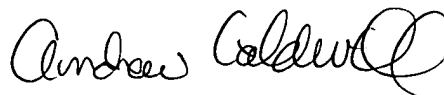
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571)272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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